

**WHAT IS CLAIMED IS:**

1. A method comprising:  
adjusting a threshold level of a radiation sensor in a radiation-measuring circuit; and  
obtaining an output signal based on radiation dose sensed by the radiation sensor.
2. The method of claim 1 further including exposing the radiation-measuring circuit to radiation.
3. The method of claim 1 wherein the radiation sensor includes a transistor, the method including supplying a voltage between a body terminal and a source terminal of the transistor to adjust a body bias of the radiation sensor.
4. The method of claim 3 including adjusting the body bias of the radiation-sensing transistor during exposure to radiation.
5. The method of claim 3 including adjusting the body bias of the radiation-sensing transistor using a voltage source that is external to the CMOS radiation-measuring circuit.

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A1  
cont*

6. The method of claim 3 including adjusting the body bias of the radiation-sensing transistor using an integrated voltage source.

7. An apparatus comprising:  
a radiation sensor with a threshold voltage; and  
an adjustable voltage source coupled to the radiation sensor to change the threshold level of the radiation sensor.

8. The apparatus of claim 7 wherein the radiation sensor forms part of a CMOS radiation-measuring circuit and the adjustable voltage source is external to the CMOS radiation-measuring circuit.

9. The apparatus of claim 7 wherein the radiation sensor forms part of a CMOS radiation-measuring circuit and the adjustable voltage source is integrated into the CMOS radiation-measuring circuit.

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A2*

10. The apparatus of claim 7 comprising:  
a current mirror; and  
an output load including a gate terminal and a drain terminal;

the radiation sensor having a source terminal coupled to a first side of the current mirror through a resistive element and coupled to the gate terminal of the output load; and

the drain terminal of the output load coupled to a second side of the current mirror.

*Sub A2*

11. The apparatus of claim 10 wherein a state of the radiation sensor controls a state of the output load.
12. The apparatus of claim 10 wherein the resistive element includes a transistor.
13. The apparatus of claim 10 wherein the resistive element includes a resistor.
14. The apparatus of claim 10 wherein the current mirror includes pMOS transistors and each of the radiation sensor, the resistive element and the output load includes an nMOS transistor.
15. The apparatus of claim 10 wherein the current mirror includes nMOS transistors and each of the radiation sensor,

the resistive element, and the output load includes a pMOS transistor.

16. An apparatus comprising:

a first transistor to sense radiation;  
a load transistor having a gate coupled to an output of the first transistor and having an output to provide a signal whose digital state depends on a state of the first transistor; and  
a current mirror coupled to the first transistor and the load transistor.

17. The apparatus of claim 16 comprising an adjustable voltage source coupled to the first transistor to adjust a threshold voltage level of the first transistor.

18. The apparatus of claim 17 wherein the first transistor forms part of a radiation-measuring circuit and the adjustable voltage source is external to the radiation-measuring circuit.

19. The apparatus of claim 17 wherein the first transistor forms part of a radiation-measuring circuit and the

adjustable voltage source is integrated into the radiation-measuring circuit.

20. The apparatus of claim 16 including a resistive element coupled to the output of the first transistor and a first side of the current mirror.

21. The apparatus of claim 20 wherein the resistive element includes a transistor.

22. The apparatus of claim 20 wherein the resistive element includes a resistor.

23. The apparatus of claim 20 wherein the current mirror includes pMOS transistors and each of the radiation sensor, the resistive element and the output load includes an nMOS transistor.

24. The apparatus of claim 20 wherein the current mirror includes nMOS transistors and each of the radiation sensor, the resistive element, and the output load includes a pMOS transistor.